

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

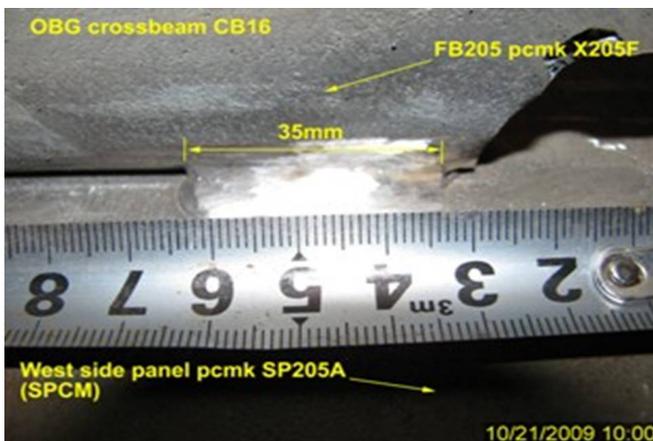
Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.25B**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT****Location:** Changxing Island, Shanghai, P. R. China**Report No:** NCR-000487**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 21-Oct-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0460**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: OBG Cross Beam CB16
Procedural	Procedural	Description:	

Reference Description: The length of the fracture critical tack welds did not meet the minimum requirement of AWS D1.5 section 12

Description of Non-Conformance:

During a random in process visual inspection of Crossbeam CB16, the Quality Assurance (QA) Inspector observed that several Fracture Critical Weld (FCW) tack welds did not comply with the AWS D1.5 requirement. The tack welds in question are joining two of the Floorbeam Diaphragms to the SPCM area of the west Side Panel. The members are identified as FB205 and SP205A, and weld joints identified as CB202F-050-180 and CB202F-051-180. The length of these tack welds measure 35mm to 60mm in length and there were six (6) tack welds in each weld joint listed above. The minimum length required is 75mm.

**Applicable reference:**

AWS D1.5 2002 section 12, table 12.2 requires FCW tack welds not covered by Submerged Arc Welding (SAW) to be a minimum of 75mm in length.

Who discovered the problem: Steve Hall**Name of individual from Contractor notified:** Yu Kum Ming

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Time and method of notification: 1400 hours, Verbal

Name of Caltrans Engineer notified: Ching Chao

Time and method of notification: 1500 hours, Email

QC Inspector's Name: Li Yang

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

N/A

Comments:

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, +(86) 134.7247.7571, who represents the Office of Structural Materials for your project.

Inspected By:	Carreon,Albert	Lead Reviewer/Task Leader
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Reviewed By:	Wahbeh,Mazen	SMR
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DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge

333 Burma Road
Oakland CA 94607
Tel: Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

To: AMERICAN BRIDGE/FLUOR, A JV
375 BURMA ROAD
OAKLAND CA 95607

Date: 02-Dec-2009

Contract No: 04-0120F4
04-SF-80-13.2 / 13.9

Dear: Mr. Charles Kanapicki

Job Name: SAS Superstructure

Attention: Mr. Thomas Nilsson Project/Fabrication Manager

Document No: 05.03.06-000450

Subject: NCR No. ZPMC-0460

Reference Description: The length of the fracture critical tack welds did not meet the minimum requirement of AWS D1.5 section 12

The attached Non-Conformance Report describes an occurrence where the contractor did not comply with a requirement of the contract document as indicated below:

- Material or Workmanship not in conformance with contract documents.
- Quality Control (QC) not performed in conformance with contract documents.
- Recurring QC issue that constitutes a systematic problem in quality control.
- Non-Conformance Resolved.

Material Location: Xbeam **Lift:** N/A

Remarks:

During a random in process visual inspection of Crossbeam CB16, the Quality Assurance (QA) Inspector observed that several Fracture Critical Weld (FCW) tack welds did not comply with the AWS D1.5 requirement. The tack welds in question are joining two of the Floorbeam Diaphragms to the SPCM area of the west Side Panel. The members are identified as FB205 and SP205A, and weld joints identified as CB202F-050-180 and CB202F-051-180. The length of these tack welds measure 35mm to 60mm in length and there were six (6) tack welds in each weld joint listed above. The minimum length required is 75mm.

Action Required and/or Action Taken:

Submit a repair procedure to the engineer for approval.

Transmitted by: Bill Howe

Attachments: ZPMC-0460

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Contract Files, Ching Chao

File: 05.03.06

NCR PROPOSED RESOLUTION

To: CALTRANS - SAS Superstructure
333 Burma Road
Oakland CA 94607

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000450

Subject: NCR No. ZPMC-0460

Dated: 25-Jan-2010

Contract No.: 04-0120F4
04-SF-80-13.2 / 13.9

Job Name: SAS Superstructure

Document No.: ABF-NPR-000538 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC will provide explanation of measure that they took to correct the issue documented in the NCR. In addition, NDT documentation will be provided to show the weld is acceptable.

ZPMC will provide explanation of measure that they took to correct the issue documented in the NCR. In addition, NDT documentation will be provided to show the weld is acceptable. Based on this ZPMC requests that this course of action be approved with action pending. When documents become available ZPMC will request closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000538R00

Caltrans' comments:

Status: AAP

Date: 26-Jan-2010

The proposed resolution provided by the contractor is accepted. The NCR will be closed once the required preventative measures are taken and repair documentation are submitted for the Engineer's review and acceptance.

Submitted by: Chao, Ching

Attachment(s):

Date: 26-Jan-2010

NCR PROPOSED RESOLUTION

To: CALTRANS - SAS Superstructure
333 Burma Road
Oakland CA 94607

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000450

Subject: NCR No. ZPMC-0460

Dated: 14-Apr-2010

Contract No.: 04-0120F4
04-SF-80-13.2 / 13.9

Job Name: SAS Superstructure

Document No.: ABF-NPR-000538 Rev: 01

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has removed the tack welds documented in the NCR and welded the correct length tack welds. Attached is documentation to show that the final welds are acceptable.

ZPMC has removed the tack welds documented in the NCR and welded the correct length tack welds. Attached is documentation to show that the final welds are acceptable. Note that the weld IDs referenced in the NCR were incorrect, ZPMC is providing NDT documentation with the correct weld IDs. Based on that ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000538R01;

Caltrans' comments:

Status: CLO

Date: 21-Apr-2010

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0460 is closed.

Submitted by: Eagen, Sean

Attachment(s):

Date: 21-Apr-2010



No. B-727

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-4-13

REGARDING: NCR-000487(ZPMC-0460)

ZPMC have fixed these tacks before welding. Please be noticed the correct welds' IDs should be CB202G-050-180 & CB202G-051-180. ZPMC is providing NDT record shows these welds are acceptable. Based on this ZPMC is requesting closure of this NCR.

ATTACHMENT:

NCR-000487(ZPMC-0460)

B787-MT-17831

A handwritten signature in black ink, appearing to be 'J. M. Z.', written in a cursive style.

4/13/10



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge
333 Burma Road
Oakland CA 94607
Tel: Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

To: AMERICAN BRIDGE/FLUOR, A JV
375 BURMA ROAD
OAKLAND CA 95607

Date: 02-Dec-2009

Contract No: 04-0120F4
04-SF-80-13.2 / 13.9

Dear: Mr. Charles Kanapicki

Job Name: SAS Superstructure

Attention: Mr. Thomas Nilsson Project/Fabrication Manager

Document No: 05.03.06-000450

Subject: NCR No. ZPMC-0460

Reference Description: The length of the fracture critical tack welds did not meet the minimum requirement of AWS D1.5 section 12

The attached Non-Conformance Report describes an occurrence where the contractor did not comply with a requirement of the contract document as indicated below:

- Material or Workmanship not in conformance with contract documents.
- Quality Control (QC) not performed in conformance with contract documents.
- Recurring QC issue that constitutes a systematic problem in quality control.
- Non-Conformance Resolved.

Material Location: Xbeam

Lift: N/A

Remarks:

During a random in process visual inspection of Crossbeam CB16, the Quality Assurance (QA) Inspector observed that several Fracture Critical Weld (FCW) tack welds did not comply with the AWS D1.5 requirement. The tack welds in question are joining two of the Floorbeam Diaphragms to the SPCM area of the west Side Panel. The members are identified as FB205 and SP205A, and weld joints identified as CB202F-050-180 and CB202F-051-180. The length of these tack welds measure 35mm to 60mm in length and there were six (6) tack welds in each weld joint listed above. The minimum length required is 75mm.

Action Required and/or Action Taken:

Submit a repair procedure to the engineer for approval.

Transmitted by: Bill Howe

Attachments: ZPMC-0460

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Contract Files, Ching Chao

File: 05.03.06

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.25B

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

Location: Changxing Island, Shanghai, P. R. China

Report No: NCR-000487

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 21-Oct-2009

Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

NCR #: ZPMC-0460

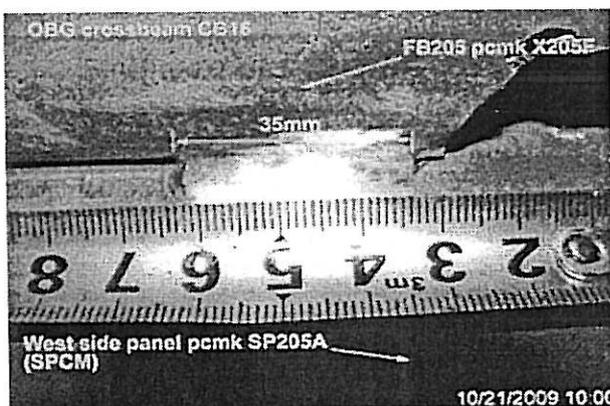
Type of problem:

Welding **Concrete** **Other**
Welding **Curing** **Procedural** **Bridge No:** 34-0006
Joint fit-up **Coating** **Other** **Component:** OBG Cross Beam CB16
Procedural **Procedural** **Description:**

Reference Description: The length of the fracture critical tack welds did not meet the minimum requirement of AWS D1.5 section 12

Description of Non-Conformance:

During a random in process visual inspection of Crossbeam CB16, the Quality Assurance (QA) Inspector observed that several Fracture Critical Weld (FCW) tack welds did not comply with the AWS D1.5 requirement. The tack welds in question are joining two of the Floorbeam Diaphragms to the SPCM area of the west Side Panel. The members are identified as FB205 and SP205A, and weld joints identified as CB202F-050-180 and CB202F-051-180. The length of these tack welds measure 35mm to 60mm in length and there were six (6) tack welds in each weld joint listed above. The minimum length required is 75mm.



Applicable reference:

AWS D1.5 2002 section 12, table 12.2 requires FCW tack welds not covered by Submerged Arc Welding (SAW) to be a minimum of 75mm in length.

Who discovered the problem: Steve Hall

Name of individual from Contractor notified: Yu Kum Ming

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Time and method of notification: 1400 hours, Verbal

Name of Caltrans Engineer notified: Ching Chao

Time and method of notification: 1500 hours, Email

QC Inspector's Name: Li Yang

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

N/A

Comments:

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, +(86) 134.7247.7571, who represents the Office of Structural Materials for your project.

Inspected By: Carreon,Albert

Lead Reviewer/Task Leader

Reviewed By: Wahbeh,Mazen

SMR



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-17831 DATE日期 2010.01.17 PAGE OF页码 1/2 Revision No: 0

PROJECT NO. ZP06-787 CONTRACTOR: CALTRANS
 工程编号: 用户:

DRAWING NO. CB202G CALTRANS CONTRACT NO.: 04-0120F4
 图号: CB16 CROSS BEAM 加州工程编号

REFERENCING CODE ACCEPTANCE STANDARD PROCEDURE NO. CALIBRATION DUE DATE
 参考规范编码 接受标准 程序编号 仪器校正有效期
 AWS D1.5-2002 AWS D1.5-2002 ZPQC-MT-01 Dec. 28ST, 2010

EQUIPMENT 设备 MANUFACTURER 制造商 MODEL NO. 样式编号 SERIAL NO. 连续编号
 MT YOKE PARKER B310S 5395 5617 5620

MAGNETIZING METHOD Continuous magnetic yoke CURRENT AC
 磁化方法 磁轭式连续法 电流

PARTICLE TYPE Dry magnet powder YOKE SPACING 70~150mm
 磁粉类型 干磁粉 磁轭间距

MATERIAL TO BE EXAMINED √ WELDING 焊接件 Material & thickness A709M-345T2/F2-X
 检测材料 CASTING 铸件 母材, 厚度 14/12mm
 FORGING 锻造

WELDING PROCESS FCAW TYPE OF JOINT CORNER- JOINT
 焊接方法 焊缝类型

WELD I.D. 焊缝编号	DISCONTINUITY不连续性			ACCEPT 接受	REJECT 拒收	REMARKS 备注
	INDICATION 指示	TYPE 类型	LENGTH IN mm 长度			
CB202G-049-180	1	longitudinal crack	6		REJ.	Y=1046
CB202G-049-181	1	longitudinal crack	8		REJ.	Y=400
CB202G-049-182				ACC.		100%MT
CB202G-049-183				ACC.		100%MT
CB202G-049-184				ACC.		100%MT
CB202G-049-185				ACC.		100%MT
CB202G-050-180				ACC.		100%MT
CB202G-050-181				ACC.		100%MT
CB202G-050-182				ACC.		100%MT
CB202G-050-183				ACC.		100%MT
CB202G-050-184				ACC.		100%MT
CB202G-050-185				ACC.		100%MT
CB202G-051-180				ACC.		100%MT
CB202G-051-181	1	longitudinal crack	8		REJ.	Y=0
CB202G-051-182				ACC.		100%MT

EXAMINED BY主操 REVIEWED BY 审核
 Xu hua xiang Su Wei
 LEVEL - II SIGN 签名 / DATE日期 10.01.17 LEVEL-II SIGN / DATE日期 12.01.17
 质量经理 / QCM 用户CUSTOMER
 签字 SIGN / 日期 DATE 签字 SIGN / 日期 DATE



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-17831 DATE日期 2010.01.17 PAGE OF页码 2/2 Revision No: 0

PROJECT NO. ZP06-787 CONTRACTOR: CALTRANS
 工程编号: 用户:

DRAWING NO. CB202G CALTRANS CONTRACT NO.: 04-0120F4
 图号: CB16 CROSS BEAM 加州工程编号

REFERENCING CODE ACCEPTANCE STANDARD PROCEDURE NO. CALIBRATION DUE DATE
 参考规范编码 接受标准 程序编号 仪器校正有效期
 AWS D1.5-2002 AWS D1.5-2002 ZPQC-MT-01 Dec. 28ST, 2010

EQUIPMENT 设备 MANUFACTURER 制造商 MODEL NO. 样式编号 SERIAL NO. 连续编号
 MT YOKE PARKER B310S 5395 5617 5620

MAGNETIZING METHOD Continuous magnetic yoke CURRENT AC
 磁化方法 磁轭式连续法 电流

PARTICLE TYPE Dry magnet powder YOKE SPACING 70~150mm
 磁粉类型 干磁粉 磁轭间距

MATERIAL TO BE √ WELDING 焊接件 Material & thickness A709M-345T2/F2-X
 EXAMINED □ CASTING 铸件 母材, 厚度
 检测材料 □ FORGING 锻造 14/12mm

WELDING PROCESS FCAW TYPE OF JOINT CORNER- JOINT
 焊接方法 焊缝类型

WELD I.D. 焊缝编号	DISCONTINUITY不连续性			ACCEPT 接受	REJECT 拒收	REMARKS 备注
	INDICATION 指示	TYPE 类型	LENGTH IN mm 长度			
CB202G-051-183				ACC.		100%MT
CB202G-051-184				ACC.		100%MT
CB202G-051-185				ACC.		100%MT
CB202G-052-180				ACC.		100%MT
CB202G-052-181				ACC.		100%MT
CB202G-052-182				ACC.		100%MT
CB202G-052-183				ACC.		100%MT
CB202G-052-184				ACC.		100%MT
CB202G-052-185				ACC.		100%MT

AFTER HSR1(B)-7995

BLANK

EXAMINED BY 主探 REVIEWED BY 审核
 Xu hua xiang Su Wei 12.2.17
 LEVEL - II SIGN 签名 / DATE日期 LEVEL-II SIGN / DATE日期
 质量经理 / QCM 用户CUSTOMER
 签字 SIGN / 日期 DATE 签字 SIGN / 日期 DATE

DEPARTMENT OF TRANSPORTATION

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: xx.25A**QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION****Location:** Changxing Island, Shanghai, P. R. China**Report No:** NCS-000656**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 21-Apr-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0460**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component:
Procedural	Procedural	Descriptor:	

Date the Non-Conformance Report was written: 21-Oct-2009**Description of Non-Conformance:**

During a random in process visual inspection of Crossbeam CB16, the Quality Assurance (QA) Inspector observed that several Fracture Critical Weld (FCW) tack welds did not comply with the AWS D1.5 requirement. The tack welds in question are joining two of the Floorbeam Diaphragms to the SPCM area of the west Side Panel. The members are identified as FB205 and SP205A, and weld joints identified as CB202F-050-180 and CB202F-051-180. The length of these tack welds measure 35mm to 60mm in length and there were six (6) tack welds in each weld joint listed above. The minimum length required is 75mm.

Contractor's proposal to correct the problem:

Remove said tack welds and replace with appropriately sized tacks.

Corrective action taken:

Tack welds in question were removed and replaced in conformance with AWS D1.5 Section 12.2 requirements for FCW tack welds. Contractor provided NDT documentation verifying welds meet Contract weld quality requirements. Please note, a discrepancy exists between the welds listed in the NCR and the actual welds, the correct weld ID are CB202G-050-180 and CB202G-051-180 respectfully.

Did corrective action require Engineer's approval? Yes No**If so, name of Engineer providing approval:****Date:****Is Engineer's approval attached?** Yes No**Comments:**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Jim Simonis, who represents the Office of Structural Materials for your project.

Inspected By: Simonis, Jim

Quality Assurance Inspector

Reviewed By: Wahbeh, Mazen

QA Reviewer